

REMARKS

This responds to the Office Action mailed on December 6, 2004.

Claims 1 – 30 are currently amended, no claims are canceled, and no claims are added; as a result, claims 1 – 30 remain pending in this application. Reconsideration of the application is respectfully requested.

§112 Rejection of the Claims

Claims 4 and 27 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claims 4 and 27 have been amended to provide proper antecedent basis for the items noted by the Examiner. Applicants would like to thank the Examiner for noting these antecedent basis issues and providing suggestions.

§102 Rejection of the Claims

Claim 1 was rejected under 35 U.S.C. § 102(e) as being anticipated by Lundberg et al. (U.S. 6,760,757).

Applicants' claim 1, as amended, is directed to a mobile server that comprises a virtual server portion that provides server data and services to client devices over a publicly-accessible internet network on behalf of a master server portion. The master server portion is part of a wireless communication device that operates within a publicly-accessible wireless communication network. A support node provides an interface between the publicly-accessible wireless communication network and the publicly-accessible internet network. The support node routes packets from the client devices requesting server services and server data to the virtual server portion instead of the master server portion. This avoids the wireless network and allows the virtual server portion to provide the server services and server data to the requesting devices on behalf of the master server portion. As discussed in more detail below, neither Lundberg alone

or in combination with the other cited references, teach suggest or motivate these recitations of Applicants' claim 1.

Publicly-accessible virtual server vs. privately available proxy server

Lundberg, on the other hand, does not teach, suggest or motivate a virtual server operating within a publicly-accessible internet network that provides server data and services on behalf of a master server. Lundberg's virtual server 10 is only accessible within Lundberg's private network (i.e., within a vehicle such as an aircraft) (see Lundberg FIG. 2). Applicants' virtual server portion operates, on the other hand, within a publicly accessible internet network.

Private network client devices vs. public network client devices

Lundberg furthermore does not teach, suggest or motivate client devices operating within a public network. Lundberg's client devices are user terminals that operate only within Lundberg's private network (i.e., within a vehicle such as an aircraft) (see Lundberg FIG. 2). Lundberg's client devices may only communicate with proxy server 10 and nothing else. The client devices recited in Applicants' claim 1 operate within a publicly accessible internet network and may access many servers, including the virtual server portion recited in claim 1.

Virtual server operating on behalf of a single master server

Lundberg furthermore does not teach, suggest or motivate a virtual server operating *on behalf of* a master server portion in which the master server portion updates the virtual server portion so that the virtual server portion reflects the master server portion. Lundberg's proxy server 10, on the other hand, "is loaded with most frequently used web pages from a ground-based server" (see Lundberg Abstract). Lundberg's proxy server, in other words, has data from many sources and does not operate on behalf of any particular server.

Master server portion not accessible by client devices

Lundberg furthermore does not teach, suggest or motivate a master server portion not accessible by client devices. The "most frequently used web pages" in Lundberg are from servers

7 that are publicly accessible. Lundberg's servers 7 are coupled to the telephone network 6 (i.e., the PSTN). Any client device in the public network can access them. On the other hand, Applicants' master server portion, which updates the virtual server portion, is not publicly accessible. As recited in claim 1, client devices communicate with the virtual server portion rather than the master server portion. Claim 8, for example, further recites that the support node maps the network address for the master server portion to the virtual server portion and routes data packets that have the network address as a destination address to the virtual server portion. In this way, client devices that try to access the master server are routed to the virtual server avoiding the wireless network. There are no such teachings in Lundberg.

Master server part of wireless communication device

Applicants' master server portion, as recited in claim 1, reside within a wireless communication device. Lundberg's servers 7 (see FIG. 2 of Lundberg) are clearly not within a wireless device. Lundberg's servers 7 are illustrated as wireline devices coupled to the telephone network (i.e., the PSTN) 6. In other words, Lundberg's servers 7 are accessible through the phone system. This teaches away from Applicants' claimed invention, as recited in amended claim 1 because Applicants' master server portion is part of a wireless device and by virtue of the mapping by the support node, it would not be directly accessible by clients. Furthermore, direct communications with Applicants' mobile server may not be reliable or they may not be of an acceptable quality due to the nature of wireless communications. At least for these reasons, a virtual server portion within a publicly accessible internet type network operates on behalf of the master server portion. Lundberg's servers 7 (which according to the Examiner correspond to Applicants' master server) are always accessible to public network client devices through the phone system. Therefore, there would be no motivation for Lundberg to operate a proxy server on behalf of servers 7 because servers 7 are always available to client devices that have public network access.

In view of the above, Applicants submit that claim 1, as amended, is not anticipated by Lundberg and the rejection of claim 1 under 35 U.S.C. § 102(e) has been overcome. Applicants

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 09/920,549

Filing Date: August 1, 2001

Title: SYSTEM AND METHOD FOR PROVIDING MOBILE SERVER SERVICES

Assignee: Intel Corporation

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Dkt: 884.488US1 (INTEL)

further submit combining Lundberg with any of the references does not result in Applicants' claims, as amended. This is discussed in more detail below.

§103 Rejections of the Claims

Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lundberg et al. and further in view of Ramasubramani et al. (U.S. 6,314,108). Claims 2 and 3 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Lundberg et al., in view of Patel et al. and further in view of Narayanaswamy (U.S. 6,295,457). Claim 4 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Lundberg et al., in view of Patel et al. and Narayanaswamy, and further in view of Ramasubramani et al. Claims 5-7 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Lundberg et al., Patel et al., Narayanaswamy and Ramasubramani et al., and further in view of Bruner et al. Claims 8 and 9 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Lundberg et al. and further in view of Tomoike et al. (U.S. 6,016,318). Claim 14 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Lundberg et al. in view of Patel et al. (U.S. 6,747,692). Claim 28 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Lundberg et al., in view of Patel et al. and further in view of Bruner (U.S. 2002/0138625).

Claims 17 and 21-25 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Lundberg et al. and Patel et al., and further in view of Bruner et al. Claims 26 and 27 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Lundberg et al., Patel et al. and Bruner et al., and further in view of Tomoike et al. Claims 29 and 30 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Lundberg et al., Patel et al. and Ramasubramani et al., and further in view of Tomoike et al.

Claim 1, as amended recites that the master server portion resides in a wireless communication device. Patel has been cited by the Examiner to show a mobile device with an internal web server. Patel discloses a single server that may be accessed by either a wireline or wireless link (see Patel column 5, lines 31 – 33). Applicants' wireless device, as recited in amended claim 1, includes the master service portion. Unlike Patel, Applicants' master server portion does not provide server services directly to client devices. Applicants' server services are provided by the virtual server portion via the publicly-accessible internet network, not the wireless network. Applicants' master server portion updates the virtual server portion over the

wireless network. Applicants' virtual server portion allows server services to be provided even when master server portion is not able to communicate with the network. Patel's server, on the other hand, may not be able to provide server services when the wireless device is out of range or the wireless connection is poor. This problem is avoided by Applicants' claimed invention as recited in claim 1. In view of this, Applicants submit that Patel teaches away from Applicant's claimed invention by providing server access over a wireless link. Therefore, there is no motivation to combine Patel with Lundberg. Furthermore, Applicants submit that combining Patel with any of the other cited references does not result in Applicants' amended claims.

Claim 8, for example, as amended, recites that the support node maps the first network address for the mobile server to the virtual server portion and routes data packets that have the first network address as a destination address to the virtual server portion to allow the virtual server portion to provide the server data and services to the requesting client devices on behalf of the master server portion over the publicly-accessible internet network.

Claim 9, for example, further recites that the mobile server also has a second network address and that the support node routes data packets that have the second network address as a destination address to the master server portion. Claim 9 also recites that data packets having the first network address as the destination address comprise the client request, that data packets having the second network address as the destination address comprise updates to client data from the virtual server portion intended for the master server portion, and that data packets having the network address of the virtual server portion comprise updates to server data from the master server portion intended for the virtual server portion.

Applicants' first network address, as recited in claim 8, is a network address of the mobile server that may be publicly known by client devices that request server services from the mobile server. This publicly known network address is mapped to the virtual server portion by the support node so that the virtual server may provide the requested server data or service. This first network address may be the address of the wireless device that the support uses for packet communications with the wireless device over the wireless network.

Applicants' second network address, as recited in claim 9, is a second network address within the publicly-accessible internet network that the master server portion is assigned by the support node. Client devices would not use this address and may not know of this address. This second network address is used to communicate client updates from the virtual server portion to the master server portion. This second network address is an address in a public network and is not an address in a private network.

Applicants' claim 7, as amended recites that the virtual server portion provides the server data to client devices over the publicly-accessible internet network in response to the client requests *both when* the wireless communication device is in communication with one of the base stations *and when* the wireless communication device is not in communication with one of the base stations. In this way, server services are not provided over a wireless network.

Tomoike, on the other hand, discloses the use of private network (LAN) addresses, which are addresses within a virtual private network, such as Tomoike's LAN 3 (see Tomoike's FIG. 1). In Tomoike, mobile data terminals have both an IP address and a public network address allowing two paths for communicating (see abstract). These addresses are mapped to the private network address. Applicants' claim 9, as amended, on the other hand, does not recite a private network address and does not map both the first and second addresses to the master server portion. The first network address is a public-network address mapped by the support node to the virtual server portion, while the second network address is used for communications from the virtual server to the master server through the support node.

Although Tomoike teaches of two ways to access the mobile network, Tomoike does not address the problem when mobile devices are not accessible in the mobile network. Rather than routing communications to mobile devices that may not be available, Applicants' claims route client request to a virtual server portion which doesn't have the reliability problems associated with the mobile devices. Therefore, combining Tomoike with the other cited references does not result in Applicants' amended claims.

Claim 2, for example, recites the support node registers the mobile server to provide the services in response to a request from the mobile server to activate the server services.

Applicants find no teaching in Lundberg of a mobile server to request an activation of a server service. In Lundberg, servers 7 (Fig. 1) are already providing a server service and will continue to provide a server service regardless of whether the proxy server on the aircraft is able to communicate with the servers. Therefore, combining Lundberg with the other cited references does not result in Applicants' amended claims

Ramasubramani has been cited by the Examiner to show the conversion of data packets between wireline and wireless networks. Applicants' support node, however, does not convert packets from client devices requesting server services from the mobile server which has an address in a wireless network, because rather than converting the packets, the support node routes those request to the virtual server portion. Similarly, server data and server services provided by the virtual server portion are not converted to a wireless network format because they are routed to client devices in the internet network. In this way, a wireless network is avoided when providing server services in accordance with Applicants' claims. Therefore, combining Ramasubramani with the other cited references does not result in Applicants' amended claims. Applicants submit that Ramasubramani's conversion of data packets teaches away from Applicants' claims which provide server services without a conversion of data packets. Therefore, there would be no motivation to combine Ramasubramani with Lundberg or any of the other cited references.

Narayanaswamy has been cited to show that a wireless communication device communicates through an integrated communication base station and internet gateway thereby bypassing the telephone network. Applicants' find no teaching, suggestion or motivation in the integrated communication base station and internet gateway of Narayanaswamy to allow a wireless device to provide server services through a virtual server portion as recited in claim 1, and as further recited in claim 8 which maps the network address of a wireless device to a

network address of server in an internet network. Therefore, combining Narayanaswamy with the other cited references does not result in Applicants' amended claims.

Bruner has been cited by the Examiner to show remote access to internet information and registering with a support node to provide server services. Bruner, however, is concerned with providing internet access to remote users. Applicants' claims are not concerned with providing internet access to remote uses. Applicants' client devices, as recited in claim 1, operate within a publicly-accessible internet network and have access to the virtual server portion in the publicly-accessible internet network. Applicants' claims are also not concerned with providing internet access to the master server portion residing in a wireless communication device because the virtual server portion reflects the server data of the master server portion and provides server services on behalf of the master server portion, whether or not the master server portion has access to the publicly-accessible internet network. In Brenner, a server is located on an aircraft which accesses the internet through land-based central computer. Similar to Lundberg, Brenner's aircraft server operates only within the private network of an aircraft and does not provide server services on behalf of a mobile server. Brenner's client devices are restricted to accessing only Brenner's aircraft server 28. Therefore, combining Brenner with the other cited references does not result in Applicants' amended claims. Applicants further submit that there is no motivation to combine Bruner with Lundberg or any of the other cited references because Bruner is concerned with providing internet access to remote users, while Applicants' claims address client devices that already have access to an internet.

In view of the remarks above, Applicants submit that independent claims 1, 10, 14 and 28 are allowable over the cited references and that the rejections of claims 2 – 30 under 35 U.S.C. § 103(a) have been overcome. Applicants further submit that dependent claims 2 – 9, 11 – 13, 15 – 27, 29 and 30 are allowable at least because of their dependency on their independent base claim and in view of the remarks above.

Conclusion

Applicants respectfully submit that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' attorney, Greg Gorrie at (480) 659-3314, or Applicants' below-named representative to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

RUI LIN ET AL.

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